

DRAFT Canaan Conservation Area

**Ten Year Area Plan
FY 2015-2024**



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OVERVIEW

- **Official Area Name:** Canaan Conservation Area, #8106
- **Year of Initial Acquisition:** 1981
- **Acreage:** 1,435 acres
- **County:** Gasconade
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**

A. Strategic Direction

The primary purpose of Canaan Conservation Area (CA) is to provide recreational opportunities to the public, including bird watching, hiking, hunting, horseback riding, outdoor photography, wildlife viewing and camping. The Area is managed for the restoration and maintenance of natural communities (forests, woodlands, glade and fen); habitat for healthy wildlife populations; and diverse public recreational opportunities. Public use is to be inviting and encouraged, particularly on the existing multiuse trail system.

B. Desired Future Condition

The desired future condition of Canaan CA is a woodland/forest complex with an interspersed of early and mid-successional old fields, grasslands, scattered cropfield/foodplots, shrubby edges, fens and glades. Focus should be made on the restoration and maintenance of natural communities, particularly in the woodlands, glades and fens.

C. Federal Aid Statement

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Consideration

A. **Priority Areas:** None

B. **Natural Areas:** None

II. Important Natural Features and Resources

A. **Species of Conservation Concern:** Species of conservation concern are not known from this site, but are found in the surrounding area. Area Managers should consult annually with the Natural History Biologist.

B. **Caves:** None

C. **Springs:** Yes, records kept with the Missouri Department of Conservation (the Department) Natural History Biologist.

D. Other:

- **Woodlands:** The area is comprised mostly of woodlands of varying quality. Some of the woodlands have been actively managed with thinning and burning; while others are still overstocked and encroached by cedar and maple. Woodlands were historically maintained by fire (Nelson, 2010) and all of the woodlands on Canaan CA need periodic disturbance to enhance and maintain their quality.
- **Fens:** There is also an Ozark Fen (Nelson, 2010) located on Canaan CA. Ozark Fens are classified as Imperiled in Missouri (Missouri Department of Conservation, 2013). Threats to them include fire suppression; rutting caused by vehicle trespass and woody vegetation; and exotic species, including feral hogs (Nelson, 2010).
- **Ecological Subsection:** Canaan CA is located within the Gasconade River Hills Subsection of the Ozark Highlands Ecological Section (Nigh & Schroeder, 2002). This subsection is a highly dissected landscape along the Gasconade River and was historically a mixture of savannas, woodlands and forests. Glades are scattered throughout the subsection and the riparian bottomlands were comprised mostly of riverfront and mixed-hardwood bottomland forests. Today, the oak forests remain, however, the woodland/glade complexes are degraded due to past grazing activity, fire suppression and repeated harvesting pressure. All of the savanna communities have been converted to pasturelands and a large portion of the bottomland forests have been cleared and converted to pasture and some cropland.

III. Existing Infrastructure

- 6 parking lots
- 2 seasonal camping areas next to parking lots (no amenities)
- 12 fishless ponds (6 acres)
- 12 miles of multiuse trail (hike/bike/horse)

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** None
- B. Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. Easements:** None
- D. Cultural Resources Findings:** Cultural resources are present; records are kept with the Department Environmental Compliance Specialist. The Old Methodist

Cemetery is located in the southwestern portion of the area. Managers should follow Best Management Practices for Cultural Resources found in the Department Resource Policy Manual.

E. Hazards and Hazardous Materials: None observed.

F. Endangered Species: None observed.

G. Boundary Issues: Establishing accurate and identifiable boundary markers is a priority for this property.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities:

- 1) Monitoring and managing of the Area's natural features (Ozark fen, springs, glade and woodland complexes, forests, riparian corridors and native grasslands).
- 2) Supporting healthy wildlife populations to provide public outdoor recreational opportunities.
- 3) Suppressing invasive species and woody vegetation succession that threaten the open land habitat conditions.

Management Objective 1: Restore and maintain existing natural features (Ozark fen, springs, glade and woodland complexes, forests and riparian corridors).

Strategy 1: Conduct forest inventory by compartment with an estimated re-entry time of 15 years, or as needed.

Strategy 2: Use existing and future forest inventory information to identify management units, where prescribed fire can be used to control woody vegetation development, and encourage the expression of native herbaceous vegetation.

Strategy 3: Use existing and future forest inventory prescriptions to identify overstocked woodlands and forests. Conduct mechanical and chemical treatments on these woodlands and forests, using Department staff, contractors and commercial harvests, where appropriate. Maintain a goal of conducting woodland/forest management on 25 to 30 percent of the identified acres between each forest inventory.

Management Objective 2: Manage open lands to provide quality upland wildlife habitat, while maintaining them in desired successional state.

Strategy 1: Use haying, mowing, prescribed fire, disking, planting and herbicide applications to enhance or convert to diverse native plant species, ensuring quality grassland structure for all wildlife.

Strategy 2: Use disturbance factors (prescribed fire, soil disturbance, herbicide applications and mechanical woody vegetation control) to maintain desired early successional state.

Strategy 3: Maintain food plots to provide public use hunting/viewing opportunities.

Management Objective 3: Reduce/eliminate invasive species.

Strategy 1: Prioritize, monitor and plan for control of invasive species.

Strategy 2: Implement invasive species control with priority given to areas delineated during monitoring.

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Minimizing sediment and gravel deposition in Clear Fork and Sulphur Branch.
- 2) Maintaining and enhancing the quality of the Ozark fen and springs that occur on the area.
- 3) Maintaining wildlife watering ponds.

Management Objective 1: Minimize sediment and gravel deposition in Clear Fork and Sulphur Branch.

Strategy 1: Restore/maintain minimum 100-foot riparian corridors using tree plantings or natural regeneration. Restoration practices may include protection from fire (wildfire and prescribed).

Strategy 2: Utilize best management practices, including adequate riparian buffers, to reduce soil erosion and increase water quality, whenever silvicultural techniques are used in the woodlands or forests.

Management Objective 2: Maintain and enhance the quality of the Ozark fen and springs that occur on the area.

Strategy 1: Restore and maintain a natural vegetation buffer of at least 100 feet around all springs and fens.

Strategy 2: Restrict vehicle, horseback and foot traffic in the Ozark fen and spring locations, to avoid damage to the soil and hydrology.

Strategy 3: Monitor for invasive species and implement control methods as needed.

Management Objective 3: Maintain wildlife watering ponds.

Strategy 1: Monitor for invasive species and implement control methods as needed.

Strategy 2: Provide maintenance to existing trails that access wildlife watering ponds to allow public access for the purpose of viewing wildlife, especially amphibians and reptiles.

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Maintaining the area's multiuse trails that provide area visitors multiple methods of access to the majority of the area.
- 2) Providing area users with varied recreational opportunities (e.g., hunting, hiking, horseback riding, camping and nature viewing).

Management Objective 1: Maintain multiuse trails for recreation and access to area users.

Strategy 1: Maintain existing trail and trailhead signage and conduct maintenance and erosion control on trails and access roads.

Strategy 2: Monitor the condition of the trail and remove any snags on or adjacent to the trail area to provide a safe and aesthetically pleasing experience for area users. Coordinate with other Department Divisions (e.g., Design and Development) to solve large-scale maintenance issues with the trail.

Strategy 3: Monitor trail use and document reported conflicts or concerns with other area uses.

Strategy 4: Monitor the creation of unauthorized trails and eliminate them as needed.

Management Objective 2: Provide area users compatible and inviting multiple-use opportunities for recreation.

Strategy 1: Maintain accurate area information and regulations through the Atlas database, area brochures, posted information and staff contacts with area users.

Strategy 2: Promote compatible and safe recreational opportunities (e.g., hunting, birding, hiking, horseback riding, camping and nature photography).

Strategy 3: Monitor and manage potential multiple-use conflicts through special use permits and coordination of seasonal uses.

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintaining cooperation and good relations with neighboring landowners.
- 2) Enforcing area and statewide regulations to ensure protection for area users and resources.

APPENDICES

Area Background:

Canaan Conservation Area is located in Gasconade County, near Bland. The Department purchased the property in 1980. Canaan Conservation Area contains 1,435 acres, 86 percent of which are forested or woodland and glade. The area includes 1.4 miles of Clear Fork Creek, 1.2 miles of Sulphur Branch Creek, several small springs and a deep muck fen. The area also features a scenic north-facing slope adjacent to Sulphur Branch and a glade/woodland complex.

The conservation area is composed of two former working farms. The Department continues to crop a portion of the area. The Department also maintains the warm-season grasses, the deep muck fen, and the woodland/glade complex.

In 2008 the Department opened a multiuse trail that is open to hikers, bicycles and horseback riding. This trail is approximately 10.4 miles long with three complete loops. Signs of natural community restoration work can be seen where cedar and hardwood trees have been cut to enhance the structure of the Area's woodlands.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Woodland	994		65
Upland Forest	88		15
Bottomland/Riparian Forest	140		7
Old Fields/Upland Fields	120		5
Warm-Season Grass Fields	42		4
Cropland/Hay Land	33		2
Savanna	11		1
Glade	6		<1
Impounded Water	1		<1
Total	1,435		100
Stream Frontage		3	

References:

Missouri Department of Conservation. (n.d.). *Natural heritage database*. Jefferson City, Missouri: Missouri Department of Conservation.

Nelson, P. W. (2010). *The terrestrial natural communities of Missouri*. Jefferson City, Missouri: Missouri Natural Areas Committee.

Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri ecoregions*. Jefferson City: Missouri Department of Conservation.

Maps:

Figure 1: Area Map

Figure 2: Existing Cover Types

Figure 3: Modeled Ecological Site Classes

Figure 4: Area Trails and Facilities

Figure 1: Area Map

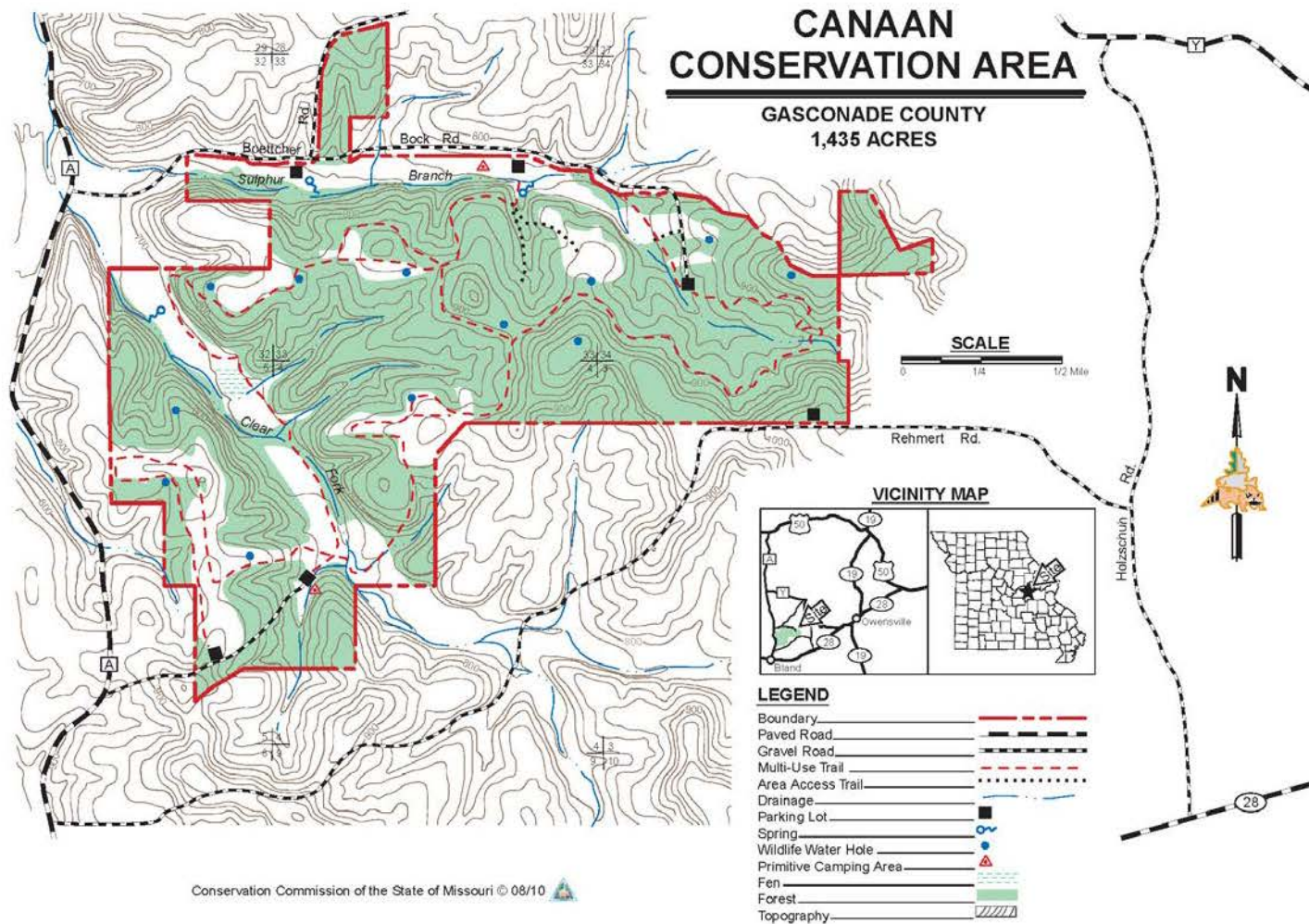


Figure 2: Existing Cover Types

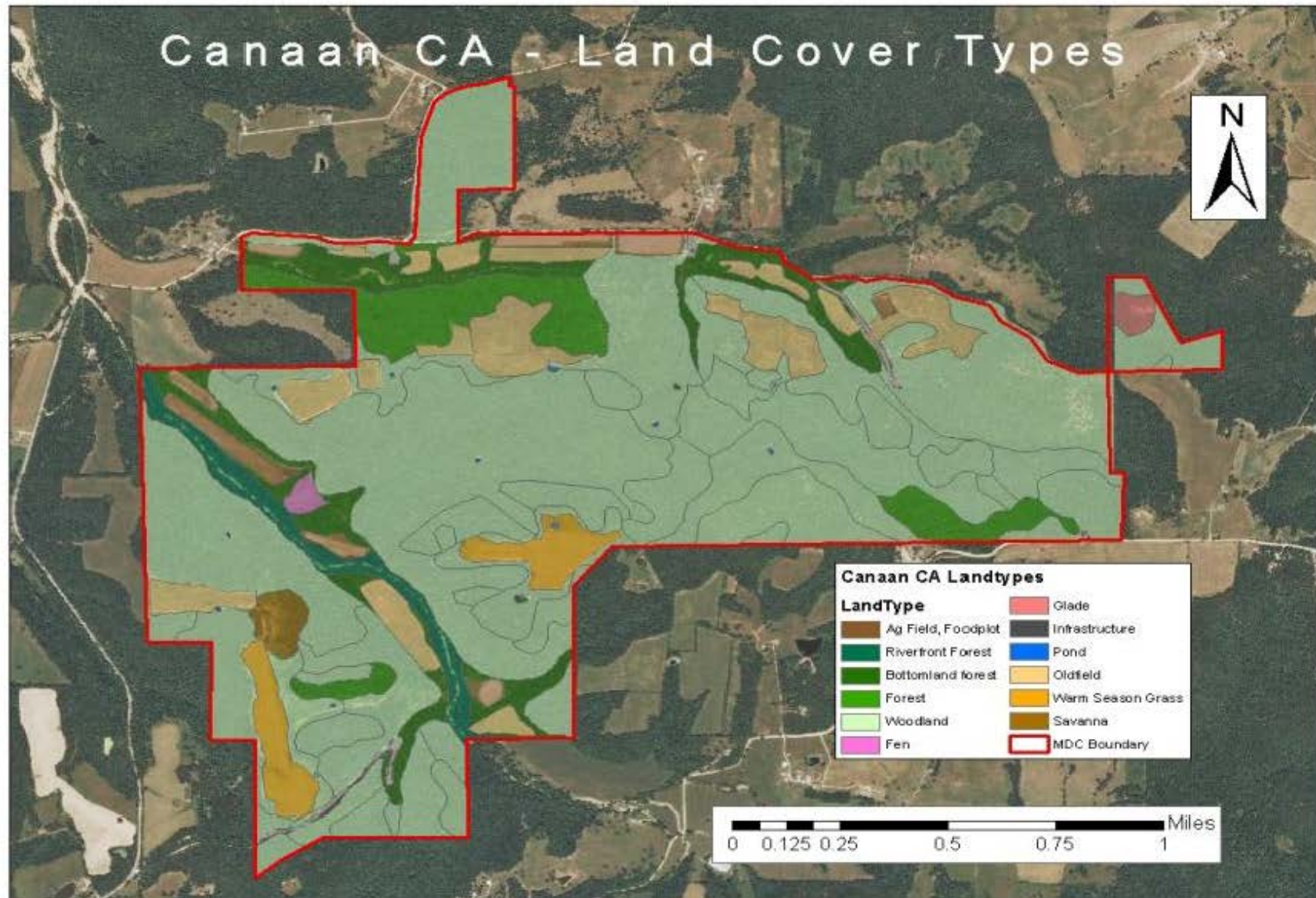


Figure 3: Modeled Ecological Site Classes

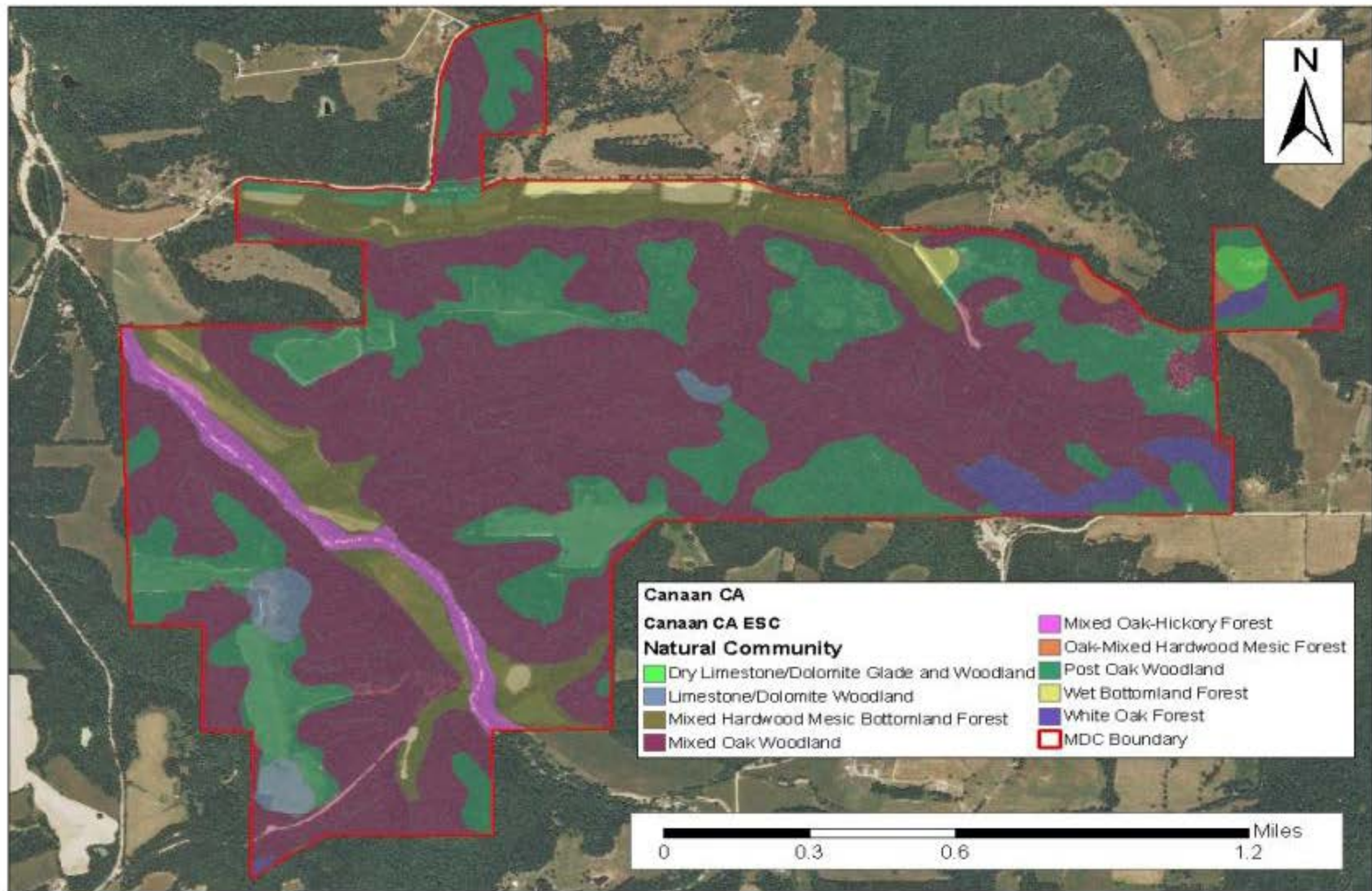
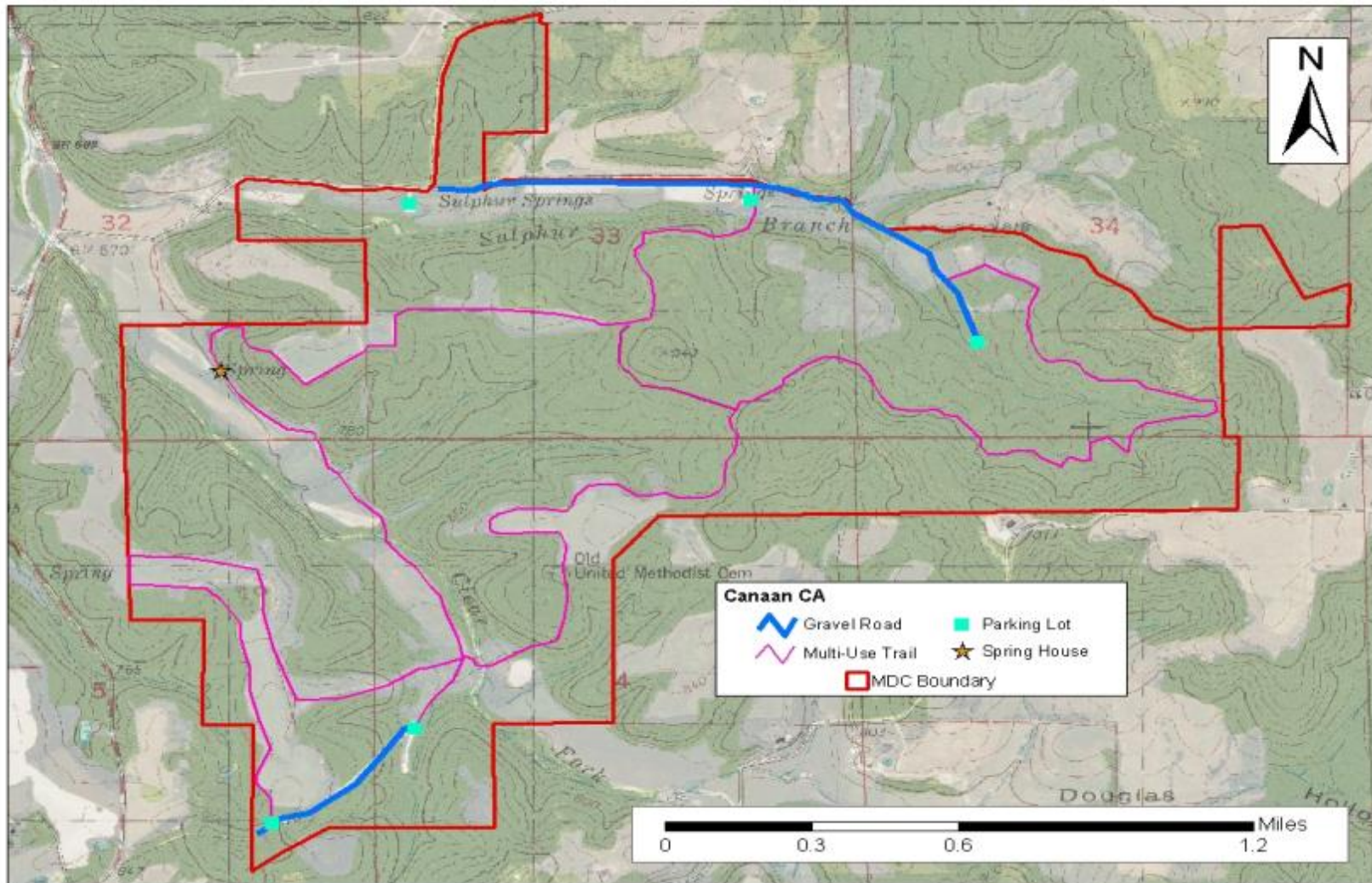


Figure 4: Area Trails and Facilities



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